Performance of electricity usage at residential college buildings in the University of Malaya campus

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ABSTRACT
A critical analysis of characteristic and building design was done through scaled drawing and observation from a site visit of twelve residential college buildings in the University of Malaya campus. The elements of passive mode were implemented as measures or criteria for the recent practice of bioclimatic design strategies. The performance of electricity usage was audited based on the Energy Efficiency Index (EII) in kWh/m²/year unit of each residential college building for the duration of nine years. As a result, the average electricity usage varied from 24 to 120 kWh/m²/year. The residential colleges that have appropriate practices of passive mode particularly internal courtyard and balconies that encourage daylighting and natural ventilation were found to achieve a desired efficient use of electricity, in the range of 24 to 34 kWh/m²/year.

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